



Abstracts for the Workshops

10 Hour OSHA General Industry Course - Techtron Engineering Inc.

Designed by OSHA to provide an awareness training on topics such as: Introduction to OSHA, Walking and Working Surfaces, Electrical, Hazard Communication, Personal Protective Equipment, Exit Routes, Emergency Action Plans, Fire Prevention, Material Handling, Hazardous Material (Flammables and Combustibles), and Permit Required Confined Space Entry. Persons completing both days of training will be mailed an OSHA 10 General Industry Card distributed by the Department of Labor.

Actuator Adjustments – Asahi America, Bray, GF Signet, Hayward Flow Control, IPEX, Plast-O-Matic

Workshop attendees will have the ability to witness a series of actuators that are out of adjustment and subsequently make the necessary adjustments to the actuator to bring it back to within normal operating parameters.

Acrylic Scratch Removal – American Sealants, Inc. (ASI)

Workshop attendees will be instructed on proper techniques for performing preventative maintenance tasks on acrylic surfaces, assessing and properly identifying damage to acrylic surfaces such as crazing, minor scratch identification and major scratch identification. Workshop attendees will be taught the techniques of minor scratch removal and have the opportunity to remove minor scratches from an acrylic tank.

Arc Flash Awareness – ABB

This presentation will utilize both video and lecture to present the hazards of an ARC Flash Event. The video portion last about 12 to 15 minutes with some level of lecture provided to explain the hazard(s) and set expectations. There will be two graphic videos which clearly show actual ARC Flash incidents. The Powerpoint lecture will attempt to cover ARC Flash basics, boundaries, standards, labeling and clothing.

ASME B31.3 Solvent Weld Training for PVC & CPVC – IPS Weld-On Workshop Supplies provided by Harrington Industrial Plastics

This training will be in two parts, first will be the classroom theory, where the attendees will be presented the ASTM D 2855 step by step procedure for solvent cementing a PVC or CPVC joint. This includes how to choose the proper tools to use as well as the proper grade and type of cement and primer based on the diameter and type of pipe being bonded.

The next step in the training will be hands on, where each of the attendees will build their own component assembly that will be shipped to a lab to be tested to the ASME B 31.3 required parameters. If the assembly passes the test a training certification card will be issued in that individuals name and will be sent to them. If the assembly fails the test, than that individual will be notified that they did not pass the testing and will need to go through the training again.

Aquatic Risk Management NSPF* – Joel Yankie

This course will help participants review the process of reducing injury and liability risk in and around aquatic facilities. Every business encounters risks, some of which are predictable and under management's control; others are unpredictable and uncontrollable. Risk management is a vital practice. Negligence laws, duties of care, and methods of defense against negligence will all be reviewed. Participants will review the process of developing and implementing a risk management plan. There is no course prerequisite but attendees are recommended to have previously completed the CPO® certification program. Upon successful completion of this course and exam, participants will receive a record of completion certification from NSPF in the mail.

Automated Control Systems Workshop – RCK Controls

This workshop/roundtable will provide an overview of how an Automated Controls System (ACS) can help save time, energy consumption and provide different types of alarms for times when the LSS is not functioning within parameters. B.A.W.L 2016 will be run through a control system and attendees can witness live feedback from various points throughout the system including ORP, flow, pressure and level.

Basic VFD Commissioning - ABB Inc.

This is a hands-on training enabling you to be comfortable with VFDs installed in your facility. It will allow you to identify proper wiring, on both the power and control side, qualify drive/motor compatibility, and perform basic commissioning and start-up of a VFD.

Bead Filter Startup, Operation and Maintenance – AST

AST, manufacturers of the bubblewash, propeller wash, and polygeyser bead filters will provide a workshop on the startup and maintenance of their line of filters. Included in the workshop presentation will be backwashing techniques for the filters and an overview of the operation and loading design rates for the filters. Backwashing techniques to be covered included the siphon and pump assisted backwashing, sludge removal from the bottom drain, and post backwash procedures to eliminate residual solids. Additional information to be covered will be installation of the prop motor and proper filter bed agitation and filter seal and gasket replacement, types filter media and their use, as well as filter design configuration will also be discussed.

Butterfly, Ball and Check Valve Workshop – Asahi America, Bray, GF Signet, Hayward Flow Control, IPEX, Plast-O-Matic

Hands on disassembly and troubleshooting of butterfly valves, ball valves and check valves (ball and swing/flapper). Parts identification, standard features, recommended spare parts, installation and setting of Gear-Operators, and complete teardown and rebuilding valves. How to properly diagnose failure conditions, symptoms of failures. Review of flow direction requirements where applicable along with some light actuation issues and troubleshooting. Workshop attendees will have the opportunity to cycle through each of the manufactures above and work on a series of valves, one caveat to this will be attendees will be able to rebuild a multiport valve at the Hayward Flow Control Valve Workshop.

CPO Certification Blended Training* – Joel Yankie

The CPO® certification program includes pool and spa chemistry, testing, treatment, filtration, maintenance, automatic feeding equipment, and government requirements. Participants will achieve a better understanding of the operator's role in pool care, management, and risk reduction. Many state and local health departments accept the CPO® certification program. This two part course begins with prior completion (before the AALSO Symposium) of an online curriculum that follows the 18 chapters in the NSPF® Pool & Spa Operator™ Handbook, which is also provided. Students must bring a Pool Operator Primer™ Record of Completion to the classroom on Thursday and successfully complete the Pool Operator Fusion™ class to obtain a CPO® Certification. The CPO® certification program requires an in class open book written examination. Upon successful completion of this course and exam, participants will receive CPO® certification from NSPF in the mail and is valid for five years.

Drum Filter Maintenance - Pentair

Hands on workshop where participants will learn how to perform routine maintenance tasks such as greasing the bearing blocks, changing screens and cleaning the wash down jets.

Laser Alignment of Pump and Motor Coupling – Met-Pro GPS

This presentation and alignment simulation will provide a brief tutorial of shaft alignment identifying the various types of misalignment, differences between shaft and coupling alignment and descriptions of the various methods of alignment including straight edge, dial indicator and laser. Utilizing a pump/motor coupling simulator the various methods of shaft alignment will be demonstrated highlighting the issues not identified by straight edge and/or dial indicator measurements. Finally a laser alignment tool will also be used to check for any soft foot condition.

Maintaining Larger Pumps – Met-Pro GPS

This workshop will train and provide the attendees with the opportunity to perform regular maintenance/repairs to larger scale pumps. Subjects covered will be greasing motors, how much and how often, changing pump oil, how much and how often, changing seals and changing an impeller.

Mechanical Seal School with Interactive Installation – ASI, Flex-A-Seal

The purpose of this workshop is to conduct a short 'Seal School', explaining the engineering principles behind mechanical seals and the features and benefits of several different designs as they apply to the aquatic industry. We aim to outline the best installation procedures through a practical interactive presentation that will promote professional development, and give operators knowledge applicable to their daily duties. During this workshop a few operators will be given the opportunity to demonstrate the installation of a mechanical cartridge seal on an actual pump for the rest of the group.

Ozone, ORP and Probe Calibration – GF Signet

This hands-on class will build a better understanding of the relationship between these topics. Equipment will be on hand that offers participants the opportunity to properly operate a Signet wet tap assembly and perform the procedures necessary to verify and ORP reading.

Ozone System Maintenance – Satchell Engineering and Associates, Pentair, Air Sep, Ozone Water Systems, DEL Ozone, International Ozone and RK2 Systems, Inc.

Participants in this class will be given a presentation on the key components that make up an ozone system, engineering factors that are considered when selecting various components, different ways of contacting ozone with water and various air prep systems. At the conclusion of the presentation, the larger group will break out into smaller groups and cycle through hand on workshops covering ozone generator PM, safety components PM (ambient monitors etc.), contactor PM and air prep service.

Plate Heat Exchanger Preventative Maintenance - Delta Hydronics

Hands-on discussion of plate heat exchanger components, basic design and general maintenance practices. Workshop will cover the principals of equipment sizing and aquatic application considerations. Workshop attendees will break down a small plate and frame heat exchanger, remove the plates, change the gaskets and reassemble the heat exchanger.

Proper Calibration & Maintenance of DO, pH & Conductivity Sensors - YSI

This workshop will go over the proper way to calibrate the parameter DO, pH, ORP and Conductivity. It will include hands on calibration with the proper worksheet and information needed for calibration records. This will also go over when it is recommended to calibrate and what standards to use for your application.

Protein Skimmer Operation and Maintenance - RK2 Systems Inc.

Workshop attendees will walk through all aspects of operation and maintenance of a protein skimmer to include the interface with ozone.

Pump System Optimization – MDM Inc.

Learn what the major plant engineers are doing to improve fluid flow process and reduce energy consumption. Pump System Optimization (PSO) applies efficient hydraulic principles to antiquated and improperly sized fluid handling systems in an effort to increase system efficiency and reduce energy consumption.

Pump Rebuild Bearings and Motors – MDM Inc

This workshop will cover pump rebuild techniques and attendees will have the opportunity to change pump motors, remove pump bearings and press new bearings into the pump.

Small Chiller Sizing – Aqua Logic

Participants in this class will learn the math behind properly sizing small chillers for small to medium sized systems. This class will focus primarily on sizing chillers you can commonly purchase out of equipment distributor catalogs.

Small Pump Rebuild – MDM Inc, Hayward Flow Control

Many people are unaware that small pumps can be rebuilt much in the same respects as their larger “cousins”. Workshop attendees will have the opportunity to cycle through each of the above manufacturers and completely rebuild these pumps from impellers and shafts, to seals and even changing motor’s.

Understanding the Benefits of VFDs – ABB Inc.

You’ve probably heard that variable frequency drives (VFDs) can help with energy savings, but exactly what does that mean? This session will teach you how and why VFDs can help save energy, reduce wear and tear on your equipment, and provide other benefits, and how you can leverage that knowledge to substantiate savings.

UV Sterilizer Maintenance – NeoTech Aqua, Neptune Benson

Hands-on workshop where participants will remove, clean and replace quartz sleeves. Participants will learn and physically replace O-ring seals, contacts and bulbs on a UV sterilizer and will learn about life expectancy of various bulbs along with recommended frequency of maintenance.

Water Quality Lab 101: Testing Techniques - Jeff Sedon (Walt Disney Parks & Resorts), Laurie Shaw (California Academy of Sciences), Jeff Gibula (Newport Aquarium), Karen Tuttle Stearns (Aquarium of the Pacific)

This workshop will provide basic information, tips, and tricks on performing the common water quality tests that are crucial to the operation of a zoo or aquarium system. This 45 minute workshop will demonstrate and provide hands on training for common testing like Nitrogen Cycle (Ammonia, Nitrite, and Nitrate), Chlorine, Bromine, Phosphate, Copper, pH, Temperature and Salinity by use of a variety of testing methods. The focus of this workshop is to compare testing method with cost and accuracy.

Water Quality Lecture 102: Lab Safety - Karen Tuttle Stearns (Aquarium of the Pacific)

This lecture will provide an overview of Laboratory Safety. This 45 minute lecture will cover basic laboratory best practices in safety standards like laboratory hazards, personal protective equipment, storage of chemicals, chemical spills and laboratory green practices. The focus of this lecture is laboratory best practices and to prepare for the Level 1 Water Quality Exam.

Water Quality Lecture 103: Equipment Options - Jeff Gibula (Newport Aquarium)

This lecture will provide an overview of the equipment needed in a water quality laboratory that supports the operation of a zoo or aquarium system. This 45 minute lecture will cover chemicals, glassware, laboratory supplies, electronics, spectrometers, meters, and burets. The focus of this lectures is from set up to expansion, and will highlight what equipment is needed at a variety of budget levels and to prepare for the Level 1 Water Quality Exam.

*Please note that these NSPF courses require an additional fee